

IN THE CLAIMS:

1. (Currently Amended) A method for manufacturing a semiconductor device, comprising:

forming a metal gate electrode material over a semiconductor substrate, wherein the metal gate electrode material has a work function; and

subjecting at least a portion of the metal gate electrode material to ~~a plasma process~~ to at least one of a plasma silicidation or plasma germanidation process, the plasma process causing the portion to have a different work function.

2. (Original) The method as recited in Claim 1 further including patterning the metal gate electrode material having the work function and patterning the portion of the metal gate electrode material having the different work function to form a first gate electrode having the work function and a second gate electrode having the different work function.

3. (Original) The method as recited in Claim 2 further including forming a cladding layer over the metal gate electrode material having the work function and the metal gate electrode material having the different work function prior to the patterning, wherein the cladding layer reduces a sheet resistance of the first gate electrode and the second gate electrode.

4. (Original) The method as recited in Claim 3 wherein the cladding layer is selected from the group of materials consisting of polysilicon, molybdenum, tungsten, and titanium nitride.

Claim 5 (Canceled)

6. (Original) The method as recited in Claim 1 wherein the layer of gate electrode material comprises a material selected from the group consisting of molybdenum, tantalum, and tungsten.

Claims 7-10 (Canceled)

11. (Original) The method as recited in Claim 1 further including forming a protective layer over the layer of gate electrode material and leaving the portion exposed, wherein forming the protective layer occurs prior to subjecting the portion to the plasma process.

Claims 12-22 (Canceled)

23. (Currently Amended) A method for manufacturing an integrated circuit, comprising:

forming transistors over a semiconductor substrate, including;

forming a metal gate electrode material over the semiconductor substrate, wherein the metal gate electrode material has a work function;

subjecting at least a portion of the metal gate electrode material to ~~a plasma process~~ to at least one of a plasma silicidation or plasma germanidation process, the plasma process causing the portion to have a different work function; and

patterning the metal gate electrode material having the work function and patterning the portion of the metal gate electrode material having the different work function to form a first gate electrode having the work function and a second gate electrode having the different work function; and

forming interconnects within dielectric layers located over the transistors ~~to form an~~

~~operational integrated circuit.~~

Claim 24 (Canceled)

25. (Original) The method as recited in Claim 23 wherein the layer of gate electrode material comprises a material selected from the group consisting of molybdenum, tantalum, and tungsten.

Claims 26-30 (Canceled)

31. (Original) The method as recited in Claim 23 further including forming a protective layer over the layer of gate electrode material and leaving the portion exposed, wherein forming the protective layer occurs prior to subjecting the portion to the plasma process.

32. (Original) The method as recited in Claim 23 further including forming a cladding layer over the metal gate electrode material having the work function and the metal gate electrode material having the different work function prior to the patterning, wherein the cladding layer reduces a sheet resistance of the first gate electrode and the second gate electrode.

33. (Original) The method as recited in Claim 32 wherein the cladding layer is selected from the group of materials consisting of polysilicon, molybdenum, tungsten, and titanium nitride.